



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

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Applicant : Leung, Kelvin T.
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Examiner : PEACHES, Randy
Docket No. : HRL069
15 Customer No. : 28848

20 For: "Apparatus and Method for Context-Sensitive Dynamic Information Service
Composition Via Mobile and Wireless Network Communication"

BRIEF ON APPEAL

25 Hon. Commissioner for Patents
Washington, D.C. 20231

Sir:

This is an appeal from the Final Rejection, dated June 3, 2005, for the above-
30 identified patent application.

REAL PARTY IN INTEREST

The present application has been assigned to HRL Laboratories, LLC of Malibu, CA.

35 **RELATED APPEALS AND INFERENCES**

The Appellant is unaware of any other appeals or interferences related to the
subject matter of this appeal.

STATUS OF CLAIMS

40 Claims 1-22 are pending and are under Final Rejection as a result of the Office
Action dated June 03, 2005. The Appellant appeals from the rejection of Claims 1, 10,

and 20. Further, the Appellant submits that the remaining claims, Claims 2-9, 11-19, 21, and 22, are patentable at least through their dependence upon an allowable base claim. The appealed claims are reproduced in the Claims Appendix.

5

STATUS OF AMENDMENTS

No Amendment after Final Rejection has been entered.

SUMMARY OF CLAIMED SUBJECT MATTER

10 The present invention relates generally to a dynamic information service and, more specifically, to a context sensitive dynamic information service comprising mobile and wireless networks. (See Specification, page 1, lines 10-12).

15 The problem, according to the present invention, with the existing data delivery structures is not too much data, but is rather a problem of data filtration and selective delivery. The present invention provides a method and apparatus for filtering data and categorizing it by contextual relevance. In this way the traditional “data-overload” bottleneck can be avoided. The invention includes three main classes of data, first is data that is of general interest or of particular interest, i.e., a user profile, this might include a notification that a vehicle is approaching a facility with restrooms or a fuel station. The data could be supplied such that when a fuel tank nears empty, the invention would alert
20 a driver what service stations exist in the next 20 miles and what their prices are for fuel. The second type of data is an alarm type. This type of data is location specific and notifies a user when the user is entering a situation that requires heightened awareness. Such a situation could be the presence of inclement weather, pathway obstructions, or other hazards. The third general class is similar to the second but is more along the lines
25 of an anomaly-based notification. This system might warn a motor vehicle driver that the vehicle is entering a stretch of road without a service station for 200 miles and that the user’s tank is approaching empty. The anomalies might include an unusual sensor reading such as an extremely fast temperature drop or the rapid slowing of vehicles in front of a user’s vehicle. (See Specification, page 2, line 15, to page 3, line 9).

30

The present invention provides an apparatus and method for providing context sensitive dynamic data disseminated via wireless networks, as is claimed in Claims 1 and

10. The invention includes an information source element configured to provide data to a data service element which uses the provided data to register with a directory service element, as is claimed in Claims 1 and 10. A client subsequently requests a service from a directory service polling subelement, as is claimed in Claims 1 and 10. The directory
5 service polling subelement sends a lookup query to the directory service which, in turn provides services matching those requested by the client to a candidate service filtering subelement, as is claimed in Claims 1 and 10. Candidate services are isolated at the candidate service filtering subelement, as is claimed in Claims 1 and 10. The candidate services are then submitted to a target service filtering subelement; where target services
10 are isolated and provided to the client, as is claimed in Claims 1 and 10. The isolated candidate services serve as the basis for registering the client's interest with a client update decision subelement, as is claimed in Claims 1 and 10. The client update decision subelement provides an updated service entry of candidate services to the target service filtering subelement, as is claimed in Claims 1 and 10. Then, the directory service update
15 decision subelement provides an updated service entry to the directory service, as is claimed in Claims 1 and 10. (See Specification, page 3, line 11, to page 4, line 14).

The information source is a sensor that is likely to provide useful information to the client, such as a permanently mounted video camera; a video camera affixed to a vehicle; a strategically placed environmental sensor; an environmental sensor affixed to a
20 vehicle; and a satellite based position sensor affixed to a vehicle, as is claimed in Claims 2 and 12. Other aspects of the information source include a terrestrially mounted temperature sensor; a terrestrially mounted video camera; a vehicle mounted satellite based position indicator; and a vehicle mounted video camera, as is claimed in Claim 4 and 14. The data service element registers with the directory service element, using
25 elements such as a computer configured to perform pre-specified functions; a device configured to respond to operator instructions; a device configured to respond to external instructions; a device configured to respond to internal system instructions; and an application-specific integrated circuit; a preprogrammed logic circuit, as is claimed in Claims 3 and 13. The client is in a mobile vehicle, as is claimed in Claims 4 and 14. In
30 another aspect, the client has a mobility pattern consistent with that of a pedestrian, and the information source is a plurality of sources including a vehicle and a stationary

sensor, as is claimed in Claims 5 and 15. The updated service entry is periodically updated even in the absence of an existing client, as is claimed in Claims 6 and 16. The data service and the directory service are located in a location remote from the personal lookup agent, as is claimed in Claim 6 and 16. (See Specification, page 5, line 12, to
5 page 30, line 16).

In another aspect, the information source is located in at least one location, and the directory service, data service and personal lookup agent are in at least one other location, as is claimed in Claims 7 and 17. In yet another aspect, the information source is located in at least one location, and the directory service, data service and personal
10 lookup agent are in at least one other general location, as is claimed in Claims 8 and 19. Additionally, at least two of the elements are physically interconnected and at least two of the parts are interconnected using wireless based technology, as is claimed in Claims 8 and 18. Furthermore, the operative interconnect between the information source and the client is characterized by at least one wireless link, as is claimed in Claims 9 and 19.
15 (See Specification, page 5, line 12, to page 30, line 16).

In another aspect, after the initial service lookup with the directory service element, the client contact with the information source subelement, via the personal lookup agent element, is substantially confined to the client update decision subelement, as is claimed in Claim 11. (See Specification, page 5, line 12, to page 30, line 16).

The present invention also includes an apparatus configured to provide data to a
20 mobile client, wherein the provided data is relevant to the location of the client, as is claimed in Claim 20. The data is dynamically updated and the client receives contextually relevant data despite changing position, as is claimed in Claim 20. The client provides criteria for what constitutes relevant data, and only data meeting the
25 criteria are provided to the user, as is claimed in Claim 21. Such data is only provided upon request for an update, unless there is a triggering event, which automatically provides an update to a user, as is claimed in Claim 22. (See Specification, page 5, line 12, to page 30, line 16).

GROUND OF REJECTION TO BE REVIEWED ON APPEAL

Issue 1 – Are Claims 1, 3, 6-11, 13, 16-22 patentable under 35 USC 102(e) over U.S. Patent No. 6,647,257 B2, to Owensby (hereinafter referred to as “the Owensby patent”)?

Issue 2 – Are Claims 2, 12, and 14 patentable under 35 U.S.C. 103(a) over the
5 Owensby patent as applied to Claims 1 and 10, and further in view of U.S. Patent No. 6,424,888 B1, to Sone et al. (hereinafter referred to as “the Sone patent”)?

Issue 3 – Are Claims 5 and 15 patentable under 35 U.S.C. 103(a) over the Owensby patent as applied to Claims 1 and 10, in view of U.S. Patent No. 6,259,990 B1, to Shojima et al. (hereinafter referred to as “the Shojima patent”)?

10

THE ARGUMENT

Issue 1 – Are Claims 1, 3, 6-11, 13, 16-22 patentable under 35 USC 102(e) over U.S. the Owensby patent?

15

In section 1 of the Office Action of June 3, 2005, the Examiner rejected Claims 1, 3, 6-11, 13, and 16-22 as being unpatentable under 35 USC 102(e) as being anticipated by the Owensby patent. The Appellant submits that the Owensby patent does not teach each and every element as set forth in the rejected claims. Please note that the claims listed below are not in numerical order, but rather are in an order corresponding to the Examiner’s Final Rejection.

Claim 1

20

25

Regarding Claim 1, the Examiner stated that the Owensby patent discloses, in col. 15, lines 32-54 and col. 17, lines 25-54, a system for providing messages, which reads on the “context sensitive dynamic data,” via wireless networks. Further, the Examiner stated that the Owensby patent discloses an Advertiser (Sponsor), which reads on the claimed “information source element,” configured to provide data to a Mobile Switch Center 18 (referring to col. 14, lines 31-38). The Examiner stated that the Mobile Switch Center reads on the claimed data service element and uses the provided data to register with a Call Management System 20. The Examiner stated that the Call Management System 20 reads on the claimed directory service element. In addition, the Examiner stated that a

wireless terminal 12 reads on the claimed client, and subsequently requests a service from an Ad Content Data 24. Additionally, the Examiner stated that the ACD (24) is a “sub” element of the Call Management System (20), referring to FIG. 2. The Examiner additionally stated that the ACD (24) is a repository for the messages sent/ requested by a subscriber; therefore, the Examiner conclude the ACD (24) is polled for information, referring to col. 6, lines 52-68.

Additionally, the Examiner stated that the ACD sends a lookup query to the Call Management System 20, wherein a lookup query is the set of results (messages) being sent to the subscriber via the Call Management System (20). The Examiner stated that the Call Management System provides services matching those requested by the wireless terminal to an Ad Chooser Server 22, which, in turn, contains a Candidate Discriminator Module 21. The Examiner stated that the Discriminator Module reads on the claimed candidate service filtering sub-element, and the Discriminator Module isolates the candidate services and submits them to an Ad Target Data 25. The Examiner stated that the Ad Target Data reads on the claimed target service filtering sub-element. The Examiner further clarified his position regarding the wireless terminal being able to request a message. The Examiner, referring to col. 6, lines 1-23, stated that the subscriber, subsequently requests services from the system.

Further, the Examiner stated that the Ad Target Data is isolated and provided to the wireless terminal and the isolated candidate services as a basis for registering the wireless terminal interest with a Historical Response Data 28. The Examiner stated that the Historical Response Data provides an updated service entry of candidate services to the target service filtering sub-element and the directory service update decision sub-element provides an updated service entry to the Call Management System 20, referring to col. 16, lines 3-51 and col. 19, lines 39-54 of the Owensby patent.

In order to establish a prima facie case of anticipation, the Examiner must set forth an argument that provides (1) a single reference (2) that teaches or enables (3) each of the claimed elements (as arranged in the claim) (4) either expressly or inherently and (5) as interpreted by one of ordinary skill in the art. All of these factors must be present, or a case of anticipation is not met. Thus, “[a]nticipation requires the disclosure in a

single prior art reference of each element of the claim under consideration.” W.L. Gore & Associates v. Garlock, Inc., 721 F.2d 1540, 220 USPQ 303 (Fed. Cir. 1983).

The Appellants submit that the Owensby patent discloses a system and method for providing targeted messages to a subscriber of a wireless mobile communications service.

5 (See col. 11, lines 18-20).

The Appellants respectfully submit that the Owensby patent does not teach all of the claimed limitations of Claim 1. Specifically, the Appellants assert that the Owensby patent does not teach, disclose, or suggest many of the elements claimed in Claim 1.

10 **a. The Owensby patent does not teach, disclose or suggest “an information source element configured to provide data to a data service element which use the provided data to register with a directory service element.”**

Claim 1 claims in part, “an information source element configured to provide data to a data service element which use the provided data to register with a directory service
15 element.” The Appellants submit that the Owensby patent does not teach, disclose, or suggest this limitation.

On page 2 of the office action, the Examiner stated that the Advertiser (Sponsor) of the Owensby patent reads on the “information source element,” the Mobile Switch Center of the Owensby patent reads on the “data service element” and the Call
20 Management System of the Owensby patent reads on the directory service element. Thus, the Examiner asserted that the Owensby patent teaches that an Advertiser (Sponsor) provides data to the Mobile Switch Center and the Mobile Switch Center uses the data from the Advertiser (Sponsor) to register with the Call Management System. The Appellants respectfully disagree with the Examiner’s interpretation of the Owensby
25 patent.

The Examiner refers to col. 14, lines 31-38 to support his assertion. Col. 14, lines 31-38 state “[r]egardless, the Mobile Switching Center 18 identifies and separates the wireless mobile communications that are to be provided with a targeted message from the wireless mobile communications that are not to be provided with a targeted message.
30 The Switch 18 then transmits the wireless mobile communications to be provided with a targeted message to the Voice Response Unit 21 or directly to the Ad Chooser Server

22.” The Appellants note that the Ad Chooser Server is contained within the Call Management System. However, the Appellants submit that the Owensby patent does not teach the first limitation of Claim 1.

First, the Appellants are unaware where in the Owensby patent it is taught what
5 kind of data is provided by the Advertiser (Sponsor) to the Mobile Switch Center, or where this communication takes place. Assuming that there are advertisements provided by the Advertiser (Sponsor), the Appellants assert that the Owensby patent teaches that these Advertisements are in a database of pre-selected commercial information, see col. 4, lines 15-16. The Appellants are unaware where the Owensby patent teaches, discloses,
10 or suggests that the Advertiser (Sponsor) provides data to the Mobile Switch Center, as is asserted by the Examiner. Thus, the Appellants submit that the Owensby patent does not teach, disclose, or suggest “an information source element configured to provide data to a data service element.”

In addition, the Appellants are unaware where the Owensby patent teaches,
15 discloses, or suggests that “a data service element which uses provided data to register with a directory service element.” According to the Examiner, the Advertiser (Sponsor) provides data to the Mobile Switch Center. Thus, the Appellants submit that the data provided by the Advertiser (Sponsor) would be some sort of advertisement or commercial data. However, the Examiner, when rejecting this element, referred to col. 14, lines 31-
20 38 which discusses wireless communication data, which the Appellants understand to be transmitted to and from the wireless mobile terminal. The Appellants submit that the wireless communication data is not provided by the Advertiser (Sponsor), but instead by the wireless mobile terminal. Even if the Examiner changes his assertion, and asserts that the information source element is not the Advertiser (Sponsor), but is instead the wireless
25 mobile terminal, the Appellants submit that the Owensby patent does not teach, disclose, or suggest that the Mobile Switch Center uses data provided by either the Advertiser (Sponsor) or the wireless mobile terminal to “register” a “data service element” with the Call Management System. As taught in col. 14, lines 31-38, the Appellants submit that “providing” wireless mobile communications to the Ad Chooser Server, is not the same
30 thing as using the wireless mobile communications “to register” with the Call Management System.

Claim 1 claims, in part, “a data service element which uses the provided data to register with a directory service element.” Merriam-Webster ® Online Dictionary, defines register (when used as a verb) to enroll formally; to record automatically; or to make a record of. The Appellants submit that “providing” wireless mobile
5 communications to the Ad Chooser Server is not the same thing as “registering.” Thus, the Appellants submit that the Owensby patent does not teach, disclose or suggest “an information source element configured to provide data to the data service element which uses the provided data to register with a directory service element.”

The above argument was provided the Examiner in a reply after the Final
10 Rejection. Based on the Final Rejection and a later Advisory Action, the Appellants maintain the above argument.

In the Advisory Action, the Examiner responded by stating that the Owensby patent teaches, in col. 13, lines 3-16, that the Mobile Switch Center 18 acquires communication between the mobile terminal, which includes a call signal. Referring to
15 col. 15, lines 43-63, the Examiner stated that the Owensby patent clarifies that the call signal contains information that is pertinent to the registration of the mobile terminal. Additionally, the Examiner stated that the wireless communication data does contain, according to col. 15, lines 54-59, sponsor information. The Examiner concluded that the data received by the Mobile Switch Center 18 is information used to register and further
20 parse to the Call Management system 20 for further processing.

The Examiner misinterprets the Owensby patent. Admittedly, as taught in col. 15, lines 33-45, the Owensby patent teaches a mobile terminal that includes data pertinent to the registration of the mobile terminal (“the wireless mobile terminal [e.g., information source] is assigned a unique Subscriber Identification Code that is pre-programmed into
25 the wireless mobile terminal...The Subscriber Identification Code is included with the call signal, and as such, is provided to the ...Call Management System”). Using the Subscriber Identification Code, the mobile terminal is registered with the Call Management System.

The Owensby patent is to be contrasted with the present invention, where the data
30 service element (and not the information source) is registered with the directory service element. The Examiner has misinterpreted this limitation of Claim 1. According to

Claim 1, the information source element provides data to a data service element, which uses the provided data to register with the directory service element.

Therefore, and as stated above, the Appellants submit that the Owensby patent does not teach, disclose or suggest “an information source element configured to provide data to the data service element which uses the provided data to register with a directory service element.”

b. The Owensby patent does not teach, disclose, or suggest “a client subsequently requests a service from a directory service polling subelement, which sends a lookup query to the directory service which, in turn provides services matching those requested by the client, to a candidate service filtering subelement, where candidate services are isolated, and are submitted to a target service filtering subelement.”

Additionally, the Appellants submit that the Owensby patent does not teach, disclose, or suggest the second limitation of Claim 1. Claim 1 claims, in part, “a client subsequently requests a service from a directory service polling subelement, which sends a lookup query to the directory service which, in turn provides services matching those requested by the client, to a candidate service filtering subelement, where candidate services are isolated, and are submitted to a target service filtering subelement.” The Examiner stated that the wireless terminal reads on the “client” and the Ad Content Data reads on the “directory service polling subelement.” The Examiner clarified that the Ad Content Data is a sub-element of the Call Management System. Further, the Examiner asserted that the Ad Content Data is a repository for the messages sent/requested by the subscriber; therefore, the Examiner concluded that the Ad Content Data is polled for information. The Examiner pointed to col. 6, lines 52-68 to support his assertions.

1. The Owensby patent does not teach, disclose or suggest “a directory service polling subelement, which sends a lookup query to the directory service.”

The Appellants submit that the Owensby patent does not teach, disclose or suggest “a client subsequently requests a service from a directory service polling

subelement, which sends a lookup query to the directory service which, in turn provides services matching those requested by the client, to a candidate service filtering subelement, where candidate services are isolated, and are submitted to a target service filtering subelement.”

5 In his rejection, the Examiner asserted that the ACD (Ad content data) sends a lookup query. The Examiner further clarified this statement by stating that the lookup query is the set of results (messages) being sent to the subscriber via the Call Management System. The Appellants disagree with the Examiner’s interpretation of the term lookup query. Merriam-Webster® Online Dictionary defines query as a question or
10 an inquiry. Thus, a set of results (messages) being sent to the subscriber via the Call Management System is not the same thing as a question being sent from Ad Content Data to the Call Management System. Further, the Owensby patent teaches that the Ad Content Data is a database including a plurality of pre-selected messages, see col. 15, lines 5-6. One skilled in the art would not understand that a database of pre-selected
15 messages would send a query. Databases hold data, they do not send queries.

 The above argument was also provided to the Examiner in a reply to the Final Rejection. In the Examiner’s Advisory Action, the Examiner clarified his interpretation of the claim language. The Examiner stated that the Owensby patent, in col. 6, lines 52-68, discloses the ACD 24, which is a sub element of the Call Management System 20.

20 The Examiner continued by stating that the ACD 24 is a repository for the messages sent/requested by a subscriber; therefore, the Examiner concluded that the ACD 24 is polled for information. The Examiner further asserted that the ACD 24 sends a lookup query, where the lookup query is the set of results (messages) being sent to the subscriber via the Call Management System 20.

25 The Appellants fail to understand the Examiner’s interpretation of a lookup query. As stated above, a “query” is a question or inquiry. The ACD does not question or inquire as to anything. The ACD is, by definition, “Ad Content Data” and is, as stated in col. 6, lines 56-59, a database that merely provides the “pre-selected audio, video and/or
30 electronid data messages...[or] pre-selected audio commercial information or advertisements.”

Thus, the Appellants maintain the original argument and submit that the Owensby patent does not teach that the Ad Content Data sends a lookup query to the directory service, as is asserted by the Examiner.

5 **c. The Owensby patent does not teach, disclose, or suggest “directory service update decision subelement provides an updated service entry to the directory service.”**

Finally, claim 1 claims, in part the “directory service update decision subelement provides an updated service entry to the directory service.” The Appellants do not
10 believe that the Examiner addressed this limitation in the present office action. The Examiner indicated that this element was taught by the Owensby patent but did not provide the Appellants with where or which element in the Owensby patent he believed taught this limitation.

The above statement was made in a reply to the Final Rejection. In the
15 Examiner’s Advisory Action, the Examiner stated that he maintained the previous rejection, but did not provide any reasoning as to this particular element. Thus, without any reasoning, the Appellants believe that the Owensby patent does not teach this limitation.

For the above-mentioned reasons, the Appellants request that the Examiner
20 withdraw this rejection and allow Claim 1.

Claim 3

Claim 3, dependent on Claim 1, is patentable by virtue of its dependency.

25 **Claim 6**

Claim 6, dependent on Claim 1, is patentable by virtue of its dependency.

Claim 16

Claim 16, dependent on Claim 10, is patentable by virtue of its dependency.

30

Claim 7

Claim 7, dependent on Claim 1, is patentable by virtue of its dependency.

Claim 8

Claim 8, dependent on Claim 1, is patentable by virtue of its dependency.

5

Claim 9

Claim 9, dependent on Claim 1, is patentable by virtue of its dependency.

Claim 10

10 The same arguments made above with reference to Claim 1 can be applied to Claim 10. Thus, the Appellants submit, for the reasons given above with respect to Claim 1, that Claim 10 is patentable over the cited prior art.

Claim 11

15 Claim 11, dependent on Claim 10, is patentable by virtue of its dependency.

Claim 13

Claim 13, dependent on Claim 10, is patentable by virtue of its dependency.

20 **Claim 17**

Claim 17, dependent on Claim 10, is patentable by virtue of its dependency.

Claim 18

Claim 18, dependent on Claim 10, is patentable by virtue of its dependency.

25

Claim 19

Claim 19, dependent on Claim 10, is patentable by virtue of its dependency.

Claim 20

30 In the Appellants' response to the first office action, the Appellants specifically addressed the Examiner's rejection of Claim 20. In the final office action, the Examiner

did not address the Appellants' arguments. In the Appellants' reply to the Final Rejection, the Appellants further requested that the Examiner provide comments as to the Appellants' arguments regarding Claim 20. Although the Examiner submitted an Advisory Action to the reply, the Appellants are unable to locate any reference to Claim 20 in the Advisory Action. Thus, it is the Appellants belief that Claim 20 is allowable. The Appellants have included their arguments from the first response for completeness.

Claim 20 claims, in part, "the data is dynamically updated" The Examiner stated that the Owensby patent teaches this limitation in col. 17, lines 54-67 and col. 18, lines 1-10. The Appellants respectfully disagree. Col. 18, lines 4-10 state "[t]he Ad Selection Code is then manipulated to select an appropriate advertisement for the subscriber based on the geographical location of the subscriber, the demographics and preferences of the subscriber, the advertisements previously provided to the subscriber and the data and time of the call." The Appellants are unaware where in the section of the Owensby patent cited by the Examiner that the "data is dynamically updated" as is claimed by Claim 20. Admittedly, an advertisement is sent based on the wireless devices location, but the Appellants submit that the Owensby patent does not teach, disclose or suggest dynamically updating the data. Thus, the Appellants submit that Claim 20 is patentable over the cited prior art.

Claim 21

Claim 21, dependent on Claim 20, is patentable by virtue of its dependency.

Claim 20

Claim 21, dependent on Claim 10, is patentable by virtue of its dependency.

Issue 2 – *Are Claims 2, 12, and 14 patentable under 35 U.S.C. 103(a) over the Owensby patent as applied to Claims 1 and 10, and further in view of the Sone patent?*

Claim 2

Claim 2, dependent on Claim 1, is patentable by virtue of its dependency.

Claim 12

Claim 12, dependent on Claim 10, is patentable by virtue of its dependency.

Claim 14

5 Claim 14, dependent on Claim 10, is patentable by virtue of its dependency.

Issue 3 – *Are Claims 5 and 15 patentable under 35 U.S.C. 103(a) over the Owensby patent as applied to Claims 1 and 10, in view of the Shojima patent?*

10 **Claim 5**

Claim 5, dependent on Claim 1, is patentable by virtue of its dependency.

Claim 15

Claim 15, dependent on Claim 10, is patentable by virtue of its dependency.

15


CONCLUSION

For the extensive reasons advanced above, the Appellants respectfully contend that each claim is patentable. Therefore, withdrawal of all rejections is courteously solicited.

To the extent necessary, a petition for an extension of time under 37 CFR 1.136 is hereby made. Please charge any shortage of fees due in connection with the filing of this paper, including extension of time fees, to deposit account no. 50-2691 and please credit any excess fees to such deposit account.

Respectfully submitted,

04/21/2006
Date


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Encl:
Claims Appendix



Claims Appendix

What is claimed is:

(Original) 1. An apparatus for providing context sensitive dynamic data via wireless networks comprising:

an information source element configured to provide data to a data service element which uses the provided data to register with a directory service element; and wherein a client subsequently requests a service from a directory service polling subelement, which sends a lookup query to the directory service which, in turn provides services matching those requested by the client, to a candidate service filtering subelement, where candidate services are isolated, and are submitted to a target service filtering subelement; where target services are isolated and provided to the client and the isolated candidate services serve as the basis for registering the client's interest with a client update decision subelement and the client update decision subelement provides an updated service entry of candidate services to the target service filtering subelement and the directory service update decision subelement provides an updated service entry to the directory service.

(Original) 2. The apparatus for providing context sensitive dynamic data via wireless networks as set forth in claim 1, wherein the information source is at least one of the following:

- i. a permanently mounted video camera,
- ii. a video camera affixed to a vehicle,

- iii. a strategically placed environmental sensor,
- iv. an environmental sensor affixed to a vehicle,
- v. a satellite based position sensor affixed to a vehicle.

(Original) 3. The apparatus for providing context sensitive dynamic data via wireless networks as set forth in claim 1, wherein the data service element includes at least one element from the list consisting of:

a computer configured to perform pre-specified functions;

a device configured to respond to operator instructions; a device configured to respond to external instructions; a device configured to respond to internal system instructions; and an application-specific integrated circuit; a preprogrammed logic circuit.

(Original) 4. The apparatus for providing context sensitive dynamic data via wireless networks as set forth in claim 1, wherein the client is in a mobile vehicle and the information source includes at least one of the following:

- i. a terrestrially mounted temperature sensor;
- ii. a terrestrially mounted video camera;
- iii. a vehicle mounted satellite based position indicator;
- iv. a vehicle mounted video camera.

(Original) 5. The apparatus for providing context sensitive dynamic data via wireless networks as set forth in claim 1, wherein the client has a mobility pattern consistent with that of a pedestrian, and the information source is a plurality of sources including a vehicle and a stationary sensor.

(Original) 6. The apparatus for providing context sensitive dynamic data via wireless networks as set forth in claim 1, wherein the updated service entry is periodically updated even in the absence of an existing client, and wherein the data service and the directory service are located in a location remote from the personal lookup agent.

(Original) 7. The apparatus for providing context sensitive dynamic data via wireless networks as set forth in claim 1, wherein the information source is located in at least one location, and the directory service, data service and personal lookup agent are in at least one other location.

(Original) 8. The apparatus for providing context sensitive dynamic data via wireless networks as set forth in claim 7, wherein the information source is located in at least one location, and the directory service, data service and personal lookup agent are in at least one other general location and at least two of the elements are physically interconnected and at least two of the parts are interconnected using wireless based technology.

(Original) 9. The apparatus for providing context sensitive dynamic data via wireless networks as set forth in claim 8, wherein the operative interconnect between the information source and the client, is characterized by at least one wireless link.

(Original) 10. A method for providing context sensitive dynamic data via wireless networks comprising:

- i. providing an information source element;
- ii. providing a data service element including at least one of the following:
 - a. a directory service update decision subelement and a
 - b. a client update decision subelement
- iii. providing a directory service;
- iv. providing a personal lookup agent, including at least one of the following subelements:
 - v. a directory service polling subelement
 - vi. a candidate service filtering subelement;
 - vii. a target service filtrating subelement;

wherein the information source is configured to provide data to the data service element;
which is configured to register with the directory service element; and

wherein a client requests a service from the personal lookup agent's directory service polling subelement which sends a lookup query to the directory service which provides services matching those services requested to the candidate service filtering subelement;

and wherein the resulting isolated candidate services are submitted to a target service filtering subelement; and wherein the isolated target services are provided to the client; and wherein the isolated candidate services serve as the basis for registering the client's interest with the client update decision subelement; and

wherein the client update decision subelement provides an updated service entry of candidate services to the target service filtering subelement and wherein the directory service update decision subelement provides an updated service entry to the directory service element and wherein the candidate services serve as the basis for the personal lookup agent element's registration of interests with the client update decision subelement which is fed by the information source element.

(Original) 11. The method for providing context sensitive dynamic data via wireless networks as set forth in claim **10** wherein after the initial service lookup utilizing the directory service element, the client contact with the information source subelement, via the personal lookup agent element is substantially confined to the client update decision subelement.

(Amended) 1213. The method for providing context sensitive dynamic data via wireless networks as set forth in claim **10**, wherein the information source is configured to provide data to the data service in at least one of the following manners:

- i. utilizing a permanently mounted video camera,
- ii. utilizing a video camera affixed to a vehicle,

- iii. utilizing a strategically placed environmental sensor,
- iv. utilizing an environmental sensor affixed to a vehicle,
- v. utilizing a satellite based position sensor affixed to a vehicle.

(Amended) ~~44~~13. The method for providing context sensitive dynamic data via wireless networks as set forth in claim **10**, wherein the data service element includes utilizing at least one of the following:

- i. a computer configured to perform pre-specified functions
- ii. a device configured to respond to operator instructions;
- iii. a device configured to respond to external instructions;
- iv. a device configured to respond to internal system instructions;
- v. an application-specific integrated circuit;
- vi. a preprogrammed logic circuit.

(Amended) ~~144~~15. The method for providing context sensitive dynamic data via wireless networks as set forth in claim **10**, wherein the client is in a mobile vehicle and the information source utilizes at least one of the following:

- i. a terrestrially mounted temperature sensor;
- ii. a terrestrially mounted video camera;
- iii. a vehicle mounted satellite based position indicator;

iv. a vehicle mounted video camera.

(Amended) ~~154~~6. The method for providing context sensitive dynamic data via wireless networks as set forth in claim **10**, wherein the client is a pedestrian, and the information source utilizes a plurality of sources including a vehicle and a stationary sensor.

(Amended) ~~164~~7. The method for providing context sensitive dynamic data via wireless networks as set forth in claim **10**, wherein the updated service entry is periodically updated even in the absence of an existing client, and wherein the data service and the directory service are located in a location remote from the personal lookup agent.

(Amended) ~~174~~8. The method for providing context sensitive dynamic data via wireless networks as set forth in claim **10**, utilizing the information source in at least one location, and utilizing the directory service, data service and personal lookup agent in at least one other location.

(Amended) ~~184~~9. The method for providing context sensitive dynamic data via wireless networks as set forth in claim ~~174~~**18**, wherein the information source is utilized in at least one location, and the directory service, data service and personal lookup agent are utilized at least one other general location and at least two of the elements are utilized

while physically interconnected and at least two of the elements are utilized while interconnected using wireless based technology.

(Amended) ~~1920~~. The method for providing context sensitive dynamic data via wireless networks as set forth in claim ~~1819~~, wherein the operative interconnect between the information source and the client, is characterized by utilizing at least one wireless link.

(Amended) ~~2021~~. An apparatus configured to provide data to a mobile client, wherein the provided data is relevant to the location of the client, and wherein the data is dynamically updated and the client receives contextually relevant data despite changing position.

(Amended) ~~2122~~. The apparatus of claim ~~2021~~, wherein the client provides criteria for what constitutes relevant data, and only data meeting the criteria are provided to the user.

(Amended) ~~2223~~. The apparatus of claim ~~2021~~, wherein the client provides criteria for what constitutes relevant data, and such data is only provided upon request for an update, unless there is a triggering event, which automatically provides an update to a user.